



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/782,786

02/23/2004

Tetsushi Kono

01272.020658

5517

5514

7590

12/28/2005

FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER

GOLDBERG, BRIAN J

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/782,786

Applicant(s)

KONO ET AL.

Examiner

Brian Goldberg

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/26/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### ***Claim Objections***

1. Claims 3 and 8 are objected to because of the following informalities: they contain the modifier "and/or". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3, 4, 7, 8, 9, and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims recite both the apparatus as well as method steps, making them indefinite.
4. Claim 7 recites the limitation "the number of ink tanks" in the last line of the claim. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 8 recites the limitation "the number of the ink tanks" in the second to last line of the claim. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 4, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung (US 2004/0113966) in view of Del Signore, II et al. (US 5074690).

8. Regarding claim 1, Chung discloses "a detection means for detecting a travel range of the print head (see Fig 2A and Par [0019]); a decision means (66 of Fig 3) for determining whether or not the detected travel range is a proper travel range (see Fig 2B and Par [0029])." Thus Chung meets the claimed invention except a control means.

9. Del Signore, II et al. teach "a control means for performing a predetermined control if the decision means decides that the travel range of the print head is not the proper travel range (see Fig 8, 124, and col 8 ln 62-63)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide a control means. One would have been motivated to so modify Chung for the benefit of alerting the user of an error as stated by Chung in paragraph [0048].

10. Regarding claim 4, Chung discloses the claimed invention as set forth above with respect to claim 1 as well as "makes an annunciation representing a result of the decision made through a predetermined annunciation means (Par [0048] ln 6-8)." Thus Chung meets the claimed invention except "the control means stops a drive means for the print head."

11. Del Signore, II et al. teach "the control means stops a drive means for the print head (see Fig 8, 124)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the control means stop a

drive means of the print head. One would have been motivated to so modify Chung for the benefit of alerting the user of an error so that the user can remove or handle the error as stated by Chung in paragraph [0048].

12. Regarding claim 11, Chung discloses “detecting a travel range of the print head (see Fig 2A and Par [0019]); determining whether or not the travel range is a proper travel range (see Fig 2B and Par [0029]).” Thus Chung meets the claimed invention except “performing a predetermined control when it is decided that the travel range of the print head is not the proper travel range.”

13. Del Signore, II et al. teach “performing a predetermined control when it is decided that the travel range of the print head is not the proper travel range (see Fig 8 and col 8 ln 62-63).” It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to perform a predetermined control. One would have been motivated to so modify Chung for the benefit of alerting the user of an error as stated by Chung in paragraph [0048].

14. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chung in view of Del Signore, II et al., and further in view of Mochizuki et al. (US 5477963). Chung discloses “a restricting member for interfering with the ink tank to limit a travel range of the print head to less than a proper travel range only if the ink tank mounted on the print head is not properly mounted on the print head (Par [0048] ln 1-8 and Fig 2B); a decision means (66 of Fig 3) for determining whether or not the travel range of the print head is a proper travel range (see Fig 2B and Par [0029]).” Thus Chung meets the claimed invention except “an ink tank containing ink to be supplied to the print head and removably mounted on

the print head; ... and a control means for performing a predetermined control if it is decided that the travel range of the print head is not the proper travel range.”

15. Del Signore, II et al. teach “a control means for performing a predetermined control if it is decided that the travel range of the print head is not the proper travel range (see Fig 8, 124, and col 8 ln 62-63).” It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide a control means. One would have been motivated to so modify Chung for the benefit of alerting the user of an error as stated by Chung in paragraph [0048].

16. Mochizuki et al. further teach “an ink tank containing ink to be supplied to the print head and removably mounted on the print head (col 2 ln 40-43).” It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide an ink tank removably mounted on the print head. One would have been motivated to so modify Chung in view of Del Signore, II et al. for the benefit of providing a replaceable source of ink as is common in inkjet printer technology.

17. Regarding claim 3, Chung in view of Del Signore, II et al., and further in view of Mochizuki et al. disclose the claimed invention as set forth above with respect to claim 2. Chung further discloses “when the decision means decides that the travel range of the print head is not the proper travel range it makes a decision on whether the ink tank is properly mounted on the print head and/or on whether an obstacle for a print head movement exists in a path of the print head

according to the travel range of the print head (see Fig 2B, Par [0029] and Par [0048] ln 1-8)."

18. Regarding claim 6, Chung in view of Del Signore, II et al., and further in view of Mochizuki et al. disclose the claimed invention as set forth above with respect to claim 3. Chung further discloses "wherein the obstacle for the movement of the print head is a protective packing material for the ink jet printing apparatus (Par [0048] ln 3-4)." Del Signore, II et al. also further disclose "wherein the obstacle for the movement of the print head is a protective packing material for the ink jet printing apparatus (col 6 ln 46-50)."

19. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chung in view of Del Signore, II et al. as applied to claim 4 above, and further in view of Otsuka et al. (US 6318834). Chung further discloses "the control means causes the display device to display a warning when it is decided that the travel range of the print head is not the proper travel range (Par [0048] ln 1-8)." Thus the claimed invention is met except "the annunciation means is constructed of a display device provided on an ink jet printing apparatus body."

20. Otsuka et al. disclose "the annunciation means is constructed of a display device provided on an ink jet printing apparatus body (col 3 ln 1-3)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide a display device. One would have been motivated to so modify Chung in view of Del Signore, II et al. for the benefit of visibly alerting the user of an error so that the user can remove or handle the error as stated by Chung in paragraph [0048].

21. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chung in view of Del Signore, II et al. as applied to claim 4 above, and further in view of Sahori et al. (US 6074107). Chung further discloses "the control means sends a signal requesting the display device to issue a warning when it is decided that the travel range of the print head is not the proper travel range (Par [0048] ln 1-8)." Thus the claimed invention is met except "the annunciation means is a display device provided on an external device connected to the ink jet printing apparatus."

22. Sahori et al. disclose a warning sent to "a display device provided on an external device (col 9 ln 49-50)." It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide a display device on an external device as the annunciation means. One would have been motivated to so modify Chung in view of Del Signore, II et al. for the benefit of visibly alerting the user of an error on a computer or other external device so that the user can remove or handle the error as stated by Chung in paragraph [0048].

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Goldberg whose telephone number is 571-272-2728. The examiner can normally be reached on Monday through Friday, 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Talbott can be reached on 571-272-1934. The fax



phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BJG

December 21, 2005



**Thinh Nguyen**  
**Primary Examiner**  
**Technology Center 2800**